WHAT IS CLAIMED IS:

1. A lymphatic imaging composition comprising:

a particle including a semiconductor nanocrystal having an outer layer bonded to the nanocrystal, the particle having a diameter between 10 nm and 20 nm.

2. The composition of claim 1, wherein the outer layer includes a polydentate ligand.

3. The composition of claim 1, wherein the particle emits light having a wavelength greater than 800 nm.

4. The composition of claim 1, wherein the nanocrystal includes a core of a first semiconductor material and an overcoating of a second semiconductor material on the core wherein the first semiconductor material and the second semiconductor material are selected so that, upon excitation, one carrier is substantially confined to the core and the other carrier is substantially confined to the overcoating.

5. The composition of claim 1, wherein the semiconductor nanocrystal includes a core of a first semiconductor material.

6. The composition of claim 5, wherein the first semiconductor material is a Group II-VI compound, a Group II-V compound, a Group III-VI compound, a Group III-V compound, a Group IV-VI compound, a Group I-III-VI compound, a Group II-IV-VI compound, or a Group II-IV-V compound.

7. The composition of claim 5, wherein the first semiconductor material is ZnS, ZnSe, ZnTe, CdS, CdSe, CdTe, HgS, HgSe, HgTe, AlN, AlP, AlAs, AlSb, GaN, GaP, GaAs, GaSb, GaSe, InN, InP, InAs, InSb, TlN, TlP, TlAs, TlSb, PbS, PbSe, PbTe, or mixtures thereof.

8. The composition of claim 5, wherein the semiconductor nanocrystal includes a second semiconductor material overcoated on the first semiconductor material.

9. The composition of claim 8, wherein the first semiconductor material has a first band gap, and the second semiconductor material has a second band gap that is larger than the first band gap.

10. The composition of claim 8, wherein the second semiconductor material is a Group II-VI compound, a Group II-V compound, a Group III-VI compound, a Group III-V compound, a Group IV-VI compound, a Group I-III-VI compound, a Group II-IV-VI compound, or a Group II-IV-V compound.

11. The composition of claim 8, wherein the second semiconductor material is ZnO, ZnS, ZnSe, ZnTe, CdO, CdS, CdSe, CdTe, MgO, MgS, MgSe, MgTe, HgO, HgS, HgSe, HgTe, AlN, AlP, AlAs, AlSb, GaN, GaP, GaAs, GaSb, InN, InP, InAs, InSb, TlN, TlP, TlAs, TlSb, TlSb, PbS, PbSe, PbTe, or mixtures thereof.

12. A method of imaging a lymphatic system of an animal comprising:

introducing a composition subcutaneously in the animal, the composition including a particle including a semiconductor nanocrystal; and

detecting emission from the particle.

13. The method of claim 12, wherein the composition is introduced proximate to a tumor site in the animal.

14. The method of claim 12, wherein detecting emission includes generating an image in the near-infrared or infrared wavelength region.

15. The method of claim 14, further comprising generating a composite image including a real-time image of an area surrounding the injection site and the image in the near-infrared or infrared wavelength region.

16. The method of claim 15, wherein the particle has a diameter of between 10 nm and 20 nm.

17. The method of claim 12, wherein the particle has a diameter of between 10 nm and 20 nm.

18. The method of claim 13, further comprising exposing the animal to white light.

19. The method of claim 12, wherein the particle emits light having a wavelength greater than 800 nm.

20. The method of claim 12, wherein the nanocrystal includes a core of a first semiconductor material and an overcoating of a second semiconductor material on the core wherein the first semiconductor material and the second semiconductor material are selected so that, upon excitation, one carrier is substantially confined to the core and the other carrier is substantially confined to the overcoating.

21. The method of claim 12, wherein detecting emission includes monitoring a site of the animal that is protected by skin.

22. An imaging system comprising:

a white light source capable of being directed at a portion of a patient;

an imaging composition including a particle including a semiconductor nanocrystal; and

a detector configured to monitor emission from the particle in the patient.